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VIA ELECTRONIC FILING

The Honorable Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Permitted Written Ex Parte Presentation
WC Docket No. 10-90; GN Docket No. 09-51; WC Docket No. 07-135; WC Docket No. 05-337; CC Docket No. 01-92; CC Docket No. 96-45; WC Docket No. 03-109; WT Docket No. 10-208

Dear Chairman Genachowski:

The State of Hawaii (the "State"),[1] by its attorneys, hereby reasserts and expands upon two concerns about the Commission's use of the National Broadband Map ("NBM") and NTIA classification of broadband in determining eligibility for Remote Areas Fund ("RAF") support. Specifically, the State is concerned that shortcomings in the data available through the NBM could result in an overestimation of the availability of broadband in Hawaiian rural areas and a corresponding omission of these areas from critically-needed RAF support. First, the census-block level data available through the NBM is insufficiently granular to capture the service gaps affecting rural Hawaii. Second, the discrepancy between the NTIA's low benchmark for broadband speeds and the Commission's higher benchmark could result in the NBM reporting large portions of Hawaii as being connected while nonetheless having little or no access to broadband.

In October 2011, the State filed a letter with the Commission previewing these concerns.[2] Subsequently, the State's Department of Commerce and Consumer Affairs ("DCCA"), in cooperation with the University of Hawaii, undertook an in-depth gap analysis to develop detailed data on the challenges to broadband deployment and adoption in the State.

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[1] These Comments are submitted by the State of Hawaii acting through its Department of Commerce and Consumer Affairs.

[2] The State raised these concerns in an ex parte letter in response to the Notice of Proposed Rulemaking. *See* Letter from State of Hawaii to Julius Genachowski, WC Docket Nos. 10-90 et al. at 2 (October 19, 2011).

The study is ongoing and the findings have been developed too recently for inclusion in the comment cycle for the Commission's Further Notice of Proposed Rulemaking ("FNPRM"). The full report will be filed with the NTIA in June (with a copy provided to the Commission through this docket), but the results already provide a detailed analysis not only of the gaps in broadband connectivity across the islands, but also of the varied and unique challenges to broadband deployment and adoption in Hawaii generally. To effectively extend robust and affordable broadband service to the remote areas of Hawaii, the Commission must proceed from the most complete and accurate information available. Although the NBM is a useful interim tool for identifying unserved areas eligible for RAF support, the State urges two changes to ensure that the Commission is acting upon the most accurate information available in challenging deployment environments such as rural Hawaii.

First, in the case of Hawaii and many other places, the census block-level data prescribed by the NTIA Grant Program requirements[3] is insufficiently granular to capture an accurate picture of broadband availability. In particular, the value of census-block level reporting is significantly reduced in areas such as Hawaii where population numbers and density vary widely within and between census blocks. On Maui, for instance, census blocks can vary in size by as much as 160 square miles, and on Oahu the population within a census block can range from only a few people to over 5,000 residents.[4] These variations make generalizing about census block conditions particularly difficult and potentially inaccurate.

Additionally, Hawaii's rugged topography means that much of the broadband service available in rural Hawaii is limited to areas immediately adjacent to coastal highways where they circle the perimeter of the major islands. Many of the census blocks in rural Hawaii include a portion of the broadband-served coastal regions, but also reach inland to form a hub-and-spoke segmentation of each island.

Although the NBM's depiction of wireline availability generally reflects this concentration of availability toward the outer perimeter, its depiction of wireless availability is significantly overinclusive. The NBM shows expansive wireless coverage across most of the State, however, much of the wireless coverage shown on the NBM represents wireless services at highly variable and relatively low throughput rates that do not reflect true broadband. Because of this inconsistent coverage, the Commission's proposal to provide high cost support to only those census blocks shown in the NBM as "having no wireline or terrestrial wireless broadband service"[5] would rule out assistance to many areas that are effectively unserved. The

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[3] *See Notice of Funds Availability,* Clarification, Department of Commerce, National Telecommunications and Information Administration, State Broadband Data and Development Grant Program (pub. Aug. 7, 2009) (instructing that broadband data should be supplied to NTIA on a census block basis for all census blocks that do not exceed two square miles, which includes the vast majority of census blocks in Hawaii).

[4] Department of Commerce and Consumer Affairs, *Hawaii Broadband Mapping Project Gap Analysis and Roadmap* (forthcoming Jun. 2012).

[5] *See In the Matter of Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up, Universal Service Reform – Mobility Fund*; Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161, ¶¶ 1230 (rel. Nov 18, 2011) ("*USF Order*" or "*FNPRM*").

Commission has recognized this inconsistency in its summary of broadband availability in Hawaii, limiting its summary map to only wireline technologies "[b]ecause of concerns with the accuracy of the data for mobile wireless broadband."[6] The Commission should therefore ensure that its process for determining RAF eligibility takes these accuracy concerns into account.

The Commission, in its FNPRM, asked whether NBM data is sufficiently granular to accurately identify areas eligible for Remote Areas Funds.[7] Although in many cases the NBM may provide a useful account of broadband availability, in the case of Hawaii it is insufficient. Reliance on NBM data alone could result in large unserved areas of rural Hawaii not being identified as eligible for critically-needed Remote Areas Fund support. For this reason, the Commission should permit states to supplement the NBM data with their own more granular analysis. Doing so will not only ensure that RAF support is directed to those areas in need, but will also reward states' investment in detailed broadband mapping.

The State's second concern with the Commission's use of the NBM to determine eligibility for RAF support is that the NBM uses the NTIA's definition of broadband, which falls far below the speed metric adopted by the Commission in this proceeding[8] and by the State in its Hawaii Broadband Initiative.[9] The NBM defines broadband as 768 Kbps downstream and 200 Kbps upstream.[10] In contrast, the Commission has recognized that actual broadband usage requires speeds averaging 4 Mbps downstream and 1 Mbps upstream.[11] Even by today's standards – before considering even more bandwidth-intensive uses that may develop in the near future – the NTIA definition is woefully out of date.

This discrepancy in the definition of broadband speeds creates a significant gap between what the Commission recognizes as sufficient for average users, and the lower tier for which the NBM nonetheless reports broadband as available. For instance, areas in Hawaii that have only wireless coverage at 2G speeds will show on the NBM as having access to broadband despite being far below the speed necessary for the benefits that the Commission and the State envision from broadband access. Early results from DCCA-sponsored mobile

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[6] *Broadband Availability: Hawaii*, http://www.fcc.gov/maps/broadband-availability-hawaii (last visited Mar. 5, 2012).

[7] *Id.*

[8] *Id.* at ¶¶ 92-95.

[9] *See Notice of Funds Availability*, Department of Commerce, National Telecommunications and Information Administration, State Broadband Data and Development Grant Program, at Section III (pub. July 8, 2009).

[10] *USF Order* at ¶ 93.

[11] *Id.* at ¶ 1241.

speed tests demonstrate actual speeds on average of 528 Kbps down and 226 Kbps up, which are not broadband rates by either standard.[12]

If the Commission were to accept the NTIA definition of broadband as presented in the NBM coverage, the result would be significant swathes of the country, and Hawaii in particular, served by broadband in name but not in fact and thereby ineligible for the RAF support necessary to build out true broadband.

In light of the facts discussed above, the State urges the Commission to ensure that RAF eligibility decisions based on the NBM use the most recent and most accurate data available, or, in the alternative, to permit states to augment the record with their own more granular data. Further, the Commission should continue to define broadband speed at a level that accords with the actual usage patterns that the Commission has observed. The discrepancy between the Commission's broadband speed metric and that of the NBM risks overlooking many of the unserved and underserved areas that are the intended recipients of the RAF. The Commission should ensure that access to broadband in name only does not render these areas ineligible for the RAF support necessary to build out the robust broadband deployment envisioned in the Connect America Fund.

Please let us know if you have any questions about these matters.

Sincerely,

Bruce A. Olcott
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[12] Data developed from tests conducted through the Hawaii Broadband Initiative speed test website, http://www.hibroadbandmap.org/hbi/. Rates are an average of 1701 mobile speed tests run during the first 30 days of testing.